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ABSTRACT

The annotated bibliography was designed to identify recommendations and best practices for instructing handicapped bilingual students. The annotations are organized according to six headings: (1) policies and legal mandates for serving exceptional bilingual students; (2) first and second language use in instruction of handicapped bilingual students; (3) educational planning; (4) recommended strategies, approaches, and programs for exceptional bilingual students; (5) curricula and materials; and (6) teacher training. Following the annotations are syntheses of findings and recommendations for future research. Among conclusions noted are a lack of empirical study of language minority students with special educational needs, widespread disagreement over ways to adapt specialized instruction, the need to develop instructional materials and curricula for this population, and a critical need for networking efforts. (CL)

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CURRICULUM AND INSTRUCTION

FOR EXCEPTIONAL BILINGUAL STUDENTS

by

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Introduction

Perhaps the most important component of the special education process is the development of an individual education program (IEP). The IEP details objectives for the handicapped student's educational program, recommends instructional activities, materials and approaches, and delineates criteria to be used in evaluating progress toward achievement of identified goals. It is through these specialized interventions that students are helped to achieve their maximum potential.

The purpose of this literature review was to identify recommendations and best practices for instructing handicapped bilingual students. In preparing this annotated bibliography, available literature related to legal or policy mandates for serving these students, and publications which provided an overview of issues in educational planning and which delineated recommendations for service delivery, were reviewed. Of central concern to the bibliography was literature which offered guidance in choosing the language of instruction and which documented outcomes of dual language instruction or of other interventions. Finally, an attempt was made to identify effective instructional practices and curricula unique to handicapped bilingual populations.

In the sections which follow, a critical analysis of publications is provided. The annotations are divided under the following headings: (a) policies and legal mandates for serving exceptional bilingual students; (b) first and second language use in instruction of handicapped bilingual students; (c) educational planning; (d) recommended strategies, approaches, and programs for exceptional

bilingual students; (e) curricula and materials; and (f) teacher training. Following the annotations is a synthesis of the findings and recommendations for future research.

1. Policies and Legal Mandates for Serving Exceptional Bilingual Students

Baca, L. (1980). Policy options for insuring the delivery of an appropriate education to handicapped children who are of limited English proficiency. Reston, VA.: Council for Exceptional Children. (ERIC Document Reproduction Service No. ED 199 963) 54 pp.

Baca presents an historical overview of litigation and legislation in bilingual education and special education and identifies protections embodied in these for language minority students. He reviews research on the efficacy of bilingual education and concludes that bilingual education is an effective educational approach not only for normal students, but for the handicapped as well. The results of a grapevine survey conducted in an attempt to document the current state of the art in services for handicapped bilingual students are presented and selected practices at the state and local levels are described.

Baca then develops policy options for assuring appropriate services for language minorities. Options are developed under 19 categories including identification and assessment, parent and community involvement, comprehensive services, resource allocation, bilingual special education, and teacher certification. Advantages and disadvantages of each option are delineated.

This document can serve as a framework for addressing both research and programmatic issues associated with the education of handicapped LEP students. However, many of the policy options presented are summaries of procedural safeguards for handicapped students contained in federal legislation and, rather than policy options, can be better characterized as recommended practices. More indepth discussions of the potential positive and negative effects of the various options would have made this a more useful tool to guide state and local policy development. This criticism is offset by the fact that Baca's is the first attempt to address the interface between bilingual education and special education and to develop a rationale for bilingual special education.

Cantres, L. A. (1981). Jose P. and the right to bilingual special education. In H. Martinez (Ed.), Proceedings from the second annual colloquium on Hispanic issues: Special education and the Hispanic child. ERIC/CUE Urban Diversity Series, 74, 11-17. (ERIC Document Reproduction Service No. ED 210 404) 69 pp.

Cantres traces the legal bases for bilingual education and for special education and suggests that the question of bilingual special education was first addressed in cases such as Diana v. State

Board of Education (1970) and U. S. v. Texas (1971). However, while these cases did result in due process safeguards for language minority students, neither addressed specifically the right to bilingual special education.

Jose P. v. Amback (1979), a class action suit dealing with the issue of bilingual special education, is reviewed. This litigation refers to three distinct lawsuits, including United Cerebral Palsy of New York v. Board of Education (1979) and Dyrcia S. v. Board of Education (1979), representing the entire class of handicapped children who were not being provided appropriate special education services by New York City Schools. A comprehensive judgement was issued in the Jose P. case and a consolidated judgement was entered in the United CP and the Dyrcia S. cases, which incorporated essentially all of the provisions of the Jose P. judgement. Under a consent decree, the Board was ordered to identify and evaluate all children of limited English proficiency and to provide a continuum of services which included bilingual instruction in both bilingual education and special education.

Cantres states that while this judgement was a significant victory for handicapped bilingual children, the remedies outlined have not been implemented. Provision of appropriate services is hindered by lack of research related to the needs of handicapped bilingual children, lack of data on who is in need of bilingual services, and lack of bilingual staff to offer such services.

2. First and Second Language Use in Instruction of Handicapped Students

Bruck, M. (1978). The suitability of early French immersion programs for the language disabled child. The Canadian Modern Language Review, 34(5), 884-887.

The suitability of immersion programs for the language disabled child is addressed. Bruck compared the performance of kindergarten children on academic, cognitive, and linguistic tests. The sample was comprised of four groups: (a) children with diagnosed language disabilities in English kindergartens, (b) language disabled children in French immersion programs, (c) a control group of children with normal language in French immersion kindergartens, and (d) a control group of children with normal language in English kindergartens. Students were evaluated annually until the end of the third grade to determine their progress in cognitive and academic skills in their native as well as their second language. The number of subjects in this study is not reported nor is there any information about subject attrition. A language disabled child was defined as one who, despite normal intellectual, physical, and emotional development, acquires language "with painful slowness" (p. 885) and who exhibits problems in comprehending and producing speech.

Results indicated that children with language problems in French immersion programs continue to develop facility in their first language, learn basic skills at the predicted rate, exhibit no severe behavioral problems and, perhaps of most importance, acquire competency in French. These children, however, take longer than normal French immersion children to acquire facility in French. While many also have difficulty mastering reading, spelling, or math skills, these difficulties are no more serious than those of the children with similar difficulties in English classes. Bruck argues that language disabled children should remain in French immersion programs rather than being switched to English classes as is a common practice. For the child, the psychological effects of the switch (e.g. feelings of failure, separation from friends, etc.) may produce more damaging results. Given this, rather than switching programs, Bruck recommends that instruction be adapted to serve children with diverse skills and that remedial programs for the language disabled be established.

Little specific information about nature of the language deficits of the subjects, or about evaluation instruments or procedures is given. Test results are not presented, but are described in broad terms. It is difficult, then, to interpret the findings.

Dew, N. & Hamayan, E. (1979, September-October). Mathematics and the bilingual child: Research on the consequences of teaching mathematics in a first or a second language. Bilingual Education Service Center Newsletter, 3(1), 9-16. (Arlington Heights, IL).

The authors reinforce the importance of native language instruction in math, which is considered by many to be less linguistically demanding and which, consequently, is recommended frequently as a subject which can be taught to LEP students in English.

Research (Troike, 1978; Zappert & Cruz, 1979; Cohen, 1973; Flores, 1969) is reviewed which indicates that native language development influences (a) achievement scores attained in math, (b) problem solving abilities in math, and (c) cognitive stage development (e.g. level of abstract thought that can be attained). Use of the non-dominant language in testing and teaching lowers math achievement scores for limited English speaking and non-English speaking students. On the other hand, students instructed in their native language outperform control groups of students in regular programs in math achievement, an advantage which holds whether testing is done in the native language or in English.

A study by Skutnabb-Kangas and Toukomaa (1976) shows that if children are submersed in instruction in a second language before the age of ten (before the formal operations stage), the development of their native language as a tool for cognitive organization is affected. Children may fail to acquire the ability to use the second

language for cognitive tasks or may not be fully competent to carry out complex cognitive operations in either language. Skutnabb-Kangas and Toukomaa also suggest that there is a threshold of native language competence necessary to avoid cognitive difficulties. When children possess language at the abstraction level in their native language, they are able to master mathematical conceptual operations even when instructed in their second language.

Fischgrund, J. E. (1982). Language intervention for hearing impaired children from linguistically and culturally diverse backgrounds. Topics in Language Disorders, 2(3), 56-66.

The author discusses linguistic and cultural considerations in serving hearing impaired students from non-English speaking (NES) homes. He emphasizes that for hearing impaired children, just as for hearing NES students, educators should use the linguistic and cultural richness of the home and community as a basis for educational programming.

Fischgrund uses Cummins' (1979) developmental interdependent hypothesis to support his contention that, for hearing impaired children whose language abilities are delayed in the first language because of hearing impairments, second language acquisition will be facilitated only through continued development and use of the first language. He recommends that hearing impaired students participate in bilingual education programs and that basic skills be taught in the native language while the child acquires English as a second language.

General guidelines for assessing language dominance and development levels of hearing impaired students are provided. Fischgrund cautions against assuming that children are dominant in one language in all contexts and recommends that abilities be compared in different domains (e.g. phonology, morphology) and in different settings (e.g. home versus school). He does not provide sufficient research data to support his conclusion that assessment procedures which focus on grammar provide the most adequate description of developmental language levels. This conclusion is reached without benefit of review of research related to assessment of semantics and pragmatics. Fischgrund simply notes that there is a growing body of knowledge which would suggest that skills in these areas be assessed.

In addition to linguistic considerations, Fischgrund examines, albeit briefly, cultural diversity and the need for bicultural curricula for the hearing impaired. He stresses that such curricula would help provide culturally different students with a conceptual framework for assimilating new information and would mitigate against a child's concluding that what is different, is inferior.

Greenlee, M. (1981). Specifying the needs of a 'bilingual' developmentally disabled population: Issues and case studies. The Journal of the National Association for Bilingual Education, 6(1), 55-76.

Greenlee offers one of the few descriptive studies of linguistic characteristics of handicapped individuals. An extensive description of the types and purposes of codeswitching is presented and codeswitching characteristics of seven developmentally disabled persons, three children and four adults, are compared with codeswitching characteristics of normal adults and children. In general, ethnicity of interactors, syntactic structure, and conversation functions seem to interact for mentally retarded persons in much the same way as for normal populations, despite the handicapping condition. Greenlee concludes that codeswitching characteristics of mentally retarded persons cannot be attributed to lack of linguistic competence and that the extent to which developmentally disabled persons can become bilingual has been underestimated.

Greenlee draws implications for special education programming and offers the following recommendations: (a) linguistic assessment should focus on sociolinguistic skills, not only on knowledge of formal linguistic structures; (b) assessments should be carried out by professionals who are themselves members of the child's language community; and (c) educational plans should consider patterns of language use in the child's community and the family's concern for language maintenance. The pattern of each individual's communicative skills must be the major consideration in decisions relating to language training.

While it is not possible to generalize from Greenlee's findings, given the small number of subjects and the wide variation in the characteristics of these students, she does provide data to generate hypotheses for further studies in this area. Until more data on simultaneous language acquisition is available, language planning will be hindered. This is particularly true given the lack of empirical studies related to Spanish language development for both monolingual and bilingual children in general, and exceptional children in particular.

Langdon, H. (1983). Assessment and intervention strategies for the bilingual language-disordered student. Exceptional Children, 50(1), 37-46.

Langdon proposes to: (a) provide an overview of language acquisition, development, and disorders of bilingual individuals; (b) discuss formal and informal instruments available to assess first and second language skills of bilingual students; (c) provide information to help discriminate language disorders in bilingual populations; and (d) guide intervention. The author presents an excellent overview of issues related to assessment and intervention for bilingual language disordered students. The range of topics is so

broad, however, that readers may be confused by the incomplete treatment of some topics (e.g. use of interpreters) or by contradictions in information presented. A series of articles might have been more effective in providing a complete discussion of these topics.

Major research findings on language acquisition and development suggest that: (a) the best time to acquire a second language may be when the first language is already well established; (b) when two languages are learned simultaneously, the different structures develop in the same sequence in each language as if each were being learned separately; and (c) most errors made by second language learners are the same as those made by native speakers. The author does not discuss the implications of these research findings for special education assessment and intervention. She simply states that "when evaluating an individual who is acquiring a second language or two languages, all these variables and general comments should be considered" (p. 38).

Langdon describes studies by Bruck et. al (1975, 1978) which indicate that children were able to learn a second language and progress in their own maternal language in spite of a language disorder. A study by Wyszewianski-Langdon (1977) provides guidelines helpful to speech pathologists in discriminating language disorders from language characteristics influenced by exposure to two languages. The linguistic performance of a group of bilingual Puerto Rican children considered to have a language disorder was compared to a matched group of children judged to be progressing normally in their acquisition of both languages. Findings indicated that bilingual children demonstrate language disorders not only in the second language, but in their native language as well. The language disordered group: (a) made more errors on tasks in each language except for auditory discrimination in English, (b) demonstrated less consistency of performance across tasks, (c) had lower native language skills, and (d) had difficulty benefiting from a language model as demonstrated on an articulation task.

Langdon gives suggestions for assessing language dominance and proficiency and stresses the need to capture language data in different environments, on different topics, and with different interactors in order to obtain a sample characteristic of the child's communicative competence. She stresses the need to test and compare skills in both languages. She further suggests that when commercial materials are not available, translations or adaptation of existing instruments in English may be used. However, because this is a common practice, and frequently results in inaccurate diagnoses of children as communication disordered, a discussion of problems inherent in this suggestion would have been helpful.

A table developed by Galvan (1980) presents the role of the speech clinician and the type of school placement recommended for monolingual and bilingual students including those whose speech and language development appears deviant. There are contradictions in the recommendations of Galvan and those of the author, but these contradictions are neither identified nor discussed. For example,

Galvan states that when a child has communication problems in both languages, English remediation is appropriate because bilingual instruction might be too confusing. Langdon, on the other hand, recommends specific training in the native language and cites research suggesting that language disordered children are capable of handling dual language instruction. Despite these contradictions, the table provides a helpful tool for considering children's linguistic characteristics and possible interventions.

Overall, Langdon provides one of the few treatments of the process of bilingual language acquisition and the implications of such for identification of communication disordered children. She also suggests that future research focus on bilingual language development, universal patterns of language acquisition, and on the effects of teaching language disordered students in the native and/or the second language. Such research is critical to guide special education services for LEP students.

Ortiz, A. A. (1984). Choosing the language of instruction for exceptional bilingual children. Teaching Exceptional Children, 16(3), 208-212.

Stressing that special educators must recognize the wide variation in language skills of minority students, the author uses a continuum to describe this linguistic diversity and provides a framework for choosing the language(s) of instruction for exceptional bilingual students. The points on the continuum are discussed briefly from the perspective of the type of language intervention which might be needed by the child. Options include native language instruction, English as a second language training, English only instruction, language development programs, and language remediation. Ortiz argues that responsibility for the first four types of intervention rests initially with regular or bilingual educators, but that remediation of language disorders is the responsibility of special educators.

Ortiz calls attention to the common misconception that handicapped children who have limited English proficiency (LEP), or who are bilingual, should be taught in English. This judgment is based on fears that handicapped LEP students will have difficulty developing language skills, will be confused by bilingual instruction, or will require more time than others to master a language. However, such reasoning ignores a critical factor: children must be able to comprehend instruction if they are to profit from it. The author suggests, as a general rule, that language disordered children who are reared in predominantly English-speaking communities and who are determined to be dominant in English, should receive special education services in English; the child reared in a speech community in which a language other than English is the predominant language should receive special education in that language.

It is not possible to determine which point on the continuum is most characteristic of the student unless language skills in both the first and the second language are adequately assessed. While assessment of language dominance and proficiency is a topic which has received much attention in the literature, this literature may not be familiar to special educators. Consequently, a thorough discussion of how to conduct such assessments would have made this article even more helpful to special educators. Also helpful would have been more indepth discussion of codeswitching, of dialects, and of how other factors, such as parental choice, type and severity of handicapping condition, motivation, and so forth, affect student performance and language choice. Unless such variables are understood, the tasks of choosing the language of instruction may be oversimplified.

Pacheco, R. (1983). Bilingual mentally retarded children: Language confusion or real deficits? In D. Omark and J. Erickson (Eds.), The bilingual exceptional child. (pp. 233-253). San Diego, CA: College Hill Press.

Pacheco presents three hypotheses to explain why Hispanic students fare so poorly in public schools. He dispels the first of these, that the Spanish bilingual population is born with lower cognitive potential than the majority population, for lack of research evidence. His second hypothesis is that school systems have an ethnic bias toward these children and do not want them to succeed. He rejects this hypothesis, concluding that continuously low performance on academic tasks is usually what motivates teachers to refer children to special education.

Greatest attention is given to the hypothesis that bilingual children encounter the unique linguistic phenomenon of a dual language experience which may result in confusion in both languages and thus impede academic progress. The school experiences of Hispanic children referred for psychological testing because of poor academic performance are described. Pacheco suggests that failure to adapt curricula to accomodate unique student characteristics, including linguistic and cultural background, exacerbates the likelihood of school failure. To illustrate this point, he uses a case study of a mentally retarded student, Elizabeth, as the basis for discussion of the "language confused" bilingual child.

Pacheco attributes Elizabeth's academic difficulty to not having reached a threshold of competence in the native language (Cummins, 1979). If children are exposed to both languages unsystematically, or if instruction is provided in English without the opportunity to become literate in the native language, children experience serious difficulties. For example, Kaminsky (1976) argues that bilingual children may fail to develop fluent reading skills since their knowledge of syntactic rules and vocabulary of each language may be insufficient to make accurate predictions regarding the information in the text.

The author recommends that Elizabeth be given the opportunity to separate her languages systematically. He describes the native language instructional program which was implemented for Elizabeth and then offers a follow-up case study as documentation of the effects of this program on development of English skills. Elizabeth's improved performance suggests that an instructional approach that focuses on the experiences of the child, and which is presented in the language that has formed the base for mental manipulations, is a viable approach for bilingual developmentally delayed children.

It is unfortunate that Pacheco uses the term "language confusion" in his discussion of underachieving bilingual children. He does not present sufficient data to judge the language skills of the student in his case study. For example, if the child's language is characterized by codeswitching, then the literature would suggest that this may be a legitimate communication system rather than indicative of language confusion. The naive reader may conclude that if there is potential for "confusion", instruction should be provided only in English.

Pacheco provides a helpful discussion of common misconceptions and attitudes of school personnel which may affect special education referral. More recent research literature, particularly regarding the effects of bilingualism on performance, would have enhanced this important section of the article. The case study supports the need to focus attention on interventions and to carefully document results of specific strategies, techniques, etc. Such a focus may also suggest directions for assessment.

Pacheco concludes his article by raising a series of interesting research questions:

1. The first question is reflected in the title of this article, "Bilingual mentally retarded children: Language confusion or real deficits?"

2. Do evaluation instruments and evaluations adequately take into account cultural and linguistic characteristics?

3. Are children erroneously categorized as retarded and placed in special education classes?

4. What factors help predict whether teaching in either L_1 or L_2, or in both languages, will best help the child, assuming the diagnosis of retardation to be correct?

5. How appropriate are ESL classes for bilingual educably mentally handicapped children?

Secada, W. G. (in press). The language of instruction for hearing impaired students from non-English speaking homes: A framework for considering alternatives. In G. L. Delgado (Ed.), The Hispanic deaf: Issues and challenges. Washington, DC: Gallaudet College Press.

Secada addresses the complex issue of language planning for a "twice special population" -- students who are hearing impaired and who come from non-English speaking homes. The author describes a preliminary framework for choosing instructional options for this population based on the principle that native language development is a requisite for developing appropriate communication skills for hearing impaired students. He criticizes programs which develop English oral or manual sign skills to the exclusion of the student's home language. Rather, he suggests that educators should base instructional planning decisions on students' unique characteristics and should capitalize on support provided by their family and community.

Special programs for LEP students include use of English only for instruction, use of two languages, and exclusive use of the student's native language; options for the hearing impaired considered are oral modalities (emphasis on lip reading and speech productivity), oral/manual modalities (use of speech and finger spelling or total communication), and manual modality (emphasis on signing). Language programs for hearing impaired students from non-English speaking homes can be selected from a matrix which crosses the program options for limited English proficient (LEP) students with program options for the hearing impaired. Each option is described and resources and personnel required for program implementation are discussed.

Secada attempts to guide educational program development for hearing impaired Hispanics. Such guidance is provided without benefit of an empirical base. The author, however, recognizes this and identifies specific research needs. These include the need to test language program options presented in this article and to explore their efficacy for hearing impaired language minority students.

Luetke-Stahlman, B. (1980, November). Applying bilingual models in classrooms for the hearing impaired. Paper presented at the Symposium on Spanish and Portuguese Bilingualism, El Paso, Texas/Juarez, Mexico. (ERIC Document Reproduction Services, No. ED 203 572) 10 pp.

While this article does not address bilingual exceptional students, it is interesting to note that special educators are beginning to look to the field of bilingual education for guidance in program development. This may suggest increasing acceptance of the efficacy of bilingual instruction, not only for normal students, but for the handicapped as well.

Because there are similarities in the language acquisition process of second language learners and of the hearing impaired, Luetke-Stahlman suggests that theories of bilingualism and findings from bilingual education research can serve as the basis for developing instructional interventions for the hearing impaired. The use of oral bilingual models in programs for the hearing impaired is explored and issues of language use in subject matter instruction are considered. Luetke-Stahlman draws distinctions between bilingualism and bimodalism (one language used in another modality, e.g. signed English and oral English) and then presents several models used to classify oral bilingual programs in terms of their linguistic goals. Advantages and disadvantages of immersion, monoliterate bilingualism, and partial bilingualism models are presented.

Luetke-Stahlman's discussion of concepts related to bilingual education are sometimes confusing or inaccurate. For example, the author's discussion of immersion programs is, in reality, a discussion of "submersion" programs in which minority children are placed in classes where all instruction is in the language of the majority group. These children frequently experience failure because they are required to use the majority language for cognitive and academic tasks before they comprehend or speak the language. In immersion programs, on the other hand, teachers are bilingual, majority students are taught in a minority language and students are not discouraged from speaking their home language. In exploring language planning for hearing impaired students, a clear understanding of bilingualism, dual language acquisition, and bilingual education program models is important.

Trites, R. L. (1981). Primary French immersion: Disabilities and prediction of success. Toronto, Ontario, Canada: The Ministry of Education.

This monograph presents an overview of studies which stemmed from a concern about children who experience great difficulty or fail in French immersion programs at the kindergarten level. The results of the first year study confirmed that certain children, despite being bright, highly motivated, from advantaged socioeconomic backgrounds, and free from personality or neurological impairment, were not successful in second language immersion programs. The neuropsychological test profiles of these children were substantially different from those of children classified, for example, as reading disabled, emotionally disturbed with reading difficulty, hyperactive with reading difficulty, or who were suspected of having minimal brain dysfunction. Experimental group children were characterized by a high IQ and excellent motor and sensory functions, and yet, poor performance on the Tactual Performance Test (TPT), a complex psychomotor problem solving task. These children appeared to have a maturational lag in the temporal lobe region as indicated by the TPT.

The second study replicated the first year investigation and clarified the maturational lag hypothesis by demonstrating that neuropsychological deficits were apparent in children below nine years of

age, but not in older children. On the basis of this finding, Trites postulated that children who show evidence of specific maturational lag would not be successful in early immersion, but would make satisfactory progress if immersed in grades 3, 4, or later.

The third study focused on development of an early identification battery to predict which four year olds would experience learning difficulties in early French immersion. Trites found that it is possible to identify, with 100% accuracy, those children who would drop out of the immersion program for academic reasons as opposed to those children who were to remain in the program and do well. The best predictors were the individual neuropsychological measures. At risk students could be identified as early as four years of age. Further, he found that children who transferred into English language programs due to academic difficulties in French progressed rapidly in the development of English language arts skills.

Serious methodological problems limit the utility of this investigation (see review of Cummins, 1979). The sample was biased in that the groups for the first study included only children who were referred to the neuropsychology laboratory of the Royal Ottawa Hospital for testing. Thus the sample was not representative of children in French immersion programs. In addition, all students were of above average IQs and of higher socioeconomic status. Recognizing this, Trites recommends that replication studies include children of varying ability levels.

There was little information given about experimental children or about the control groups although, according to the author, these groups were stringently defined. An obvious omission was specific assessment profiles of the groups prior to treatment. No information was provided about the nature or severity of children's learning difficulties, or about prior instruction. This information is important given the ongoing controversy related to distinguishing among learning disabilities, emotional disturbance, mild mental retardation, etc. There were also no data provided about instructional programs or personnel who delivered instruction, thus making judgements about the quality of the immersion programs impossible.

Trites, R. L. & Price, M. A. (1976). Learning disabilities found in association with French immersion programming: A cross validation. Toronto, Ontario, Canada: The University of Ottawa Press. 170 pp.

The authors report results of a series of studies of children who experience difficulty in French immersion programs. Investigations sought to determine whether these children resembled other groups of children who had difficulty in school programs in any consistent way. Seven control groups were used: three language groups (English-speaking children in French language schools, French speakers in French schools, and children from other ethnic and language

backgrounds in English language schools), and four "nonlanguage" groups (children characterized by hyperactivity, minimal brain dysfunction, social and emotional disability or reading disabilities). An eighth group of successful children in French immersion programs was included for further comparison. Findings suggest that French immersion subjects are significantly differentiated from other groups experiencing difficulty in school and that unique factors are operating in the learning disabilities of this group. These students do not have "classical" symptoms of learning problems such as dyslexia, personality, or behavior problems. Instead, they have superior motor and sensory functions but substantial difficulty on a psychomotor problem solving measure, the Tactual Performance Test. The authors suggest that children who have mild maturational deficits will have difficulty in a complex language learning situation and should, therefore, be switched to native language instructional programs.

Evidence is presented that children who have difficulty in French immersion, but who are retained in that program suffer in comparison to children who are switched to English language programs. Those who switched improved in vocabulary scores, reading vocabulary, and Wide Range Achievement Test scores. These students improved more from first to second testing than did the children who remained in the program.

These findings are contrary to those of Bruck et al. whose research suggested that children should be maintained in French immersion despite academic difficulties. However, Jim Cummins (1979), in the annotation which follows, raises serious questions about the interpretation of the Trites and Price data.

Cummins, J. (1979). Should the child who is experiencing difficulties in early immersion be switched to the regular English program?: A reinterpretation of Trites' data. Canadian Modern Language Review, 36, 139-145.

Cummins takes exception to studies which suggest that a child who experiences difficulty in French immersion programs should be switched to English instruction programs (Trites 1981; Trites and Price, 1976). He argues, instead, that a reinterpretation of these data indicates that children who transferred to an English program fell further behind their peers in English reading whereas those who remained in immersion, despite difficulties, did not.

Trites and Price (1976), according to Cummins, attach significance to nonsignificant statistical differences in reporting data on gains on test scores of students (e.g. Peabody Picture Vocabulary Test and the Wide Range Achievement Test). Although students who dropped out made greater gains than those who remained in French immersion, the appropriate conclusion is that there are no significant differences in the relative academic progress of these two groups. Further, because of inappropriate use of percentile scores and failure to recognize regression toward the mean, the authors gave

great significance to differences among the four student groups when, in reality, these differences were not as large as they appeared to be. Trites and Price ignore that percentile units at different points in the scale are not comparable (percentile differences in the middle range (e.g. 50%) are relatively much smaller in "real" terms, than they are at the extremes (e. g. 1-10, 90-100).

A reexamination of actual and expected grade level discrepancies on reading, spelling, and arithmetic, showed that for both the children who stayed in French immersion programs despite academic difficulty and the group of successful French immersion students, the actual grade level discrepancy scores were almost identical to expected grade level discrepancy scores, that is, children in both these groups are in the grade level which would be expected on the basis of their ages. For transfer groups, there were large differences between actual and expected grade level discrepancies. Children do much better in terms of actual grade discrepancies than in terms of ages implying that many of the children who transferred to an English program were retained or dropped back a grade. When the groups were compared in terms of the same expected grade norms, the two drop out groups made less progress in reading in comparison to those who remained in immersion.

Cummins concludes that the results reported by Trites and Price (1976) and Trites (1981) reinforce Bruck's (1978) findings that children who remain in immersion programs, despite academic difficulties, progress just as well in cognitive and academic skills as those who transfer to a regular English program.

3. Educational Planning

Ambert, A. & Dew, N. (1982). Special education for exceptional bilingual students: A handbook for educators. Milwaukee, WI: Midwest National Origin Desegregation Assistance Center. 103 pp.

This handbook provides an excellent state of the art description of bilingual special education. Topics addressed include: (a) a brief historical perspective of bilingual special education, (b) legislation and case law affecting handicapped language minorities, (c) categories of exceptionality and special considerations with bilingual students, (d) assessment, (e) parental involvement, (f) program options, and (g) special education services for exceptional bilingual students. A process for conducting a needs assessment for program implementation is also included.

Chapter six contains information specific to educational planning, development of individual education programs (IEPs), and curricular and other adaptations required for exceptional language minorities. Ambert and Dew suggest that IEPs for ethnolinguistic

minority students include annual goals related to first and second language development, remediation of academic or sensory motor deficits using appropriate instructional language, and clear requirements that related services be provided in the appropriate language(s). Short term objectives should: (a) include instructional strategies consistent with unique learner characteristics, (b) specify the language of instruction, (c) suggest specialized curriculum materials, and (d) identify appropriate reinforcers. A continuum of placement alternatives which meet the child's needs, both in terms of the handicapping condition and his/her linguistic characteristics, must be provided. Special language programs should be considered viable mainstream settings.

Three models are suggested as service delivery options for exceptional bilingual students. In the bilingual support model, a monolingual special educator is assisted by a bilingual aide; a coordinated services model teams bilingual educators and special educators for service delivery; and in an integrated services model, instruction is provided by an individual trained in both bilingual education and special education. The authors briefly describe the advantages and disadvantages of these models.

Ortiz and Yates (1982) also describe another model which is based on the premise that there is a body of knowledge specific to bilingual special education, albeit a knowledge base currently being developed. According to these authors, a bilingual special educator is one who has training related to this unique aspect of special education, not one who has dual certification. They suggest that it is unrealistic to ask educators to deduce, on their own, what in these two complementary disciplines is relevant to the education of handicapped bilingual students.

It would have been helpful to discuss more fully how services provided by monolingual special educators can be enhanced as this is probably the most common mode of service delivery. For example, until students achieve at least minimal English language competency, they will not profit from special education intervention. It is, therefore, imperative that special education teachers who do not have the services of a bilingual aide, as is commonly the case, receive training in English as a second language (ESL) instruction.

Because it has been neglected by researchers, a priority in special education should be investigations of curricula and instruction for handicapped bilingual children. Until such research is available, service delivery for this population will continue to be based on intuition and best guesses. One critical arena of investigation is the efficacy of various service delivery options for different handicapping conditions and levels of severity.

Collier, C. & Kalk, M. (1984). Bilingual special education curriculum development. In L. M. Baca & H. T. Cervantes (Eds.), The bilingual special education interface (pp. 233-268). St. Louis, MO: Times Mirror/Mosby.

Teachers must not only develop new curricula, but must also learn to adapt existing curricula in order to meet the linguistic and cultural needs of handicapped children. The authors recommend interaction and coordination among four groups in planning curriculum: parents, regular education teachers, bilingual specialists, and special education teachers. They also provide a framework for curriculum development comprised of eight steps. These steps include: (a) planning, (b) becoming familiar with the child's language and culture, (c) becoming familiar with children's educational needs and learning styles, (d) developing an IEP, (e) preparing individualized lessons, (f) modifying lessons and materials to assure linguistic and cultural relevance, (g) involving resource people and coordinating services, and (h) evaluating progress and developing new IEPs.

The information contained in this chapter can be very useful to teachers and other specialists who must develop materials and provide instruction for children in bilingual special education programs. Particularly helpful to the practitioner is the indepth discussion of components of the IEP, including assessment, objectives, methods, and evaluation. For example, a series of questions is given to help select materials and to adapt them to skills of the child, to identify culturally correct vocabulary, and to analyze whether achievement is appropriate in a given culture. The authors also include case studies to further illustrate application of concepts and ideas presented in this chapter.

Lerman, A. & Cortez, E. (1978). Discovering and meeting the needs of Hispanic hearing impaired children. Albany, NY: New York State Department of Education, Bureau of Physically Handicapped Children.

The Cooperative Research Endeavors in Education for the Deaf, Project CREED VII, was established to (a) survey and analyze the linguistic, educational, cultural, demographic, and interpersonal characteristics and the social, child care, and educational needs of families of hearing impaired Hispanics in the United States; (b) evaluate the language, academic, social and emotional functioning of children from Spanish backgrounds attending New York schools for the deaf; (c) assess the relevance and effectiveness of bilingual educational materials for hearing impaired children; and (d) design, implement, and evaluate activities aimed at meeting the needs of these students. This project represents the first investigation in the United States which focuses on deaf children from non-English speaking backgrounds.

During 1976-1977, the academic and affective functioning of 188 Hispanic hearing impaired and language impaired children using teachers' ratings, school records, and evaluations performed by CREED staff were examined. Findings were used to develop a model of variables which affect language functioning, including the language status of the child, social-emotional status, culture, home environment, home language environment, school environment, and deafness. The model provides a vehicle for a comprehensive description of students' unique attributes and, in this respect, is an excellent resource for both regular and special educators. Focusing on the unique characteristics of students allows the development of interventions which can more effectively meet children's needs, and increases potential for school success, thereby decreasing inappropriate referrals. If the child qualifies for special education, this focus creates a greater likelihood that interventions are consonant with background characteristics.

Project staff identified needs related to the intactness of the Hispanic family and the level of assimilation of the parents and designed an instrument to categorize children according to their family structure and assimilation. They found that the most highly relevant variables are presence of the natural father in the home and the traditional upbringing of the parents. Presence of the natural father affects the socioeconomic status of the family and permits the mother to be more accessible to the child, fostering greater verbal interactions. The more traditional the upbringing of the parents, the more central the concern for basic child care, and the less involvement with the educational needs of the child.

The authors conclude with a brief description of activities planned by Project CREED staff for ensuing years. The activities described focus on coordinated efforts to involve Hispanic parents in their children's education including (a) training for parents related to parent-child language communication, (b) guidance in parenting for those who demonstrate little interest in working with the school and who appear to contribute little to their children's education, and (c) outreach activities.

Little information was given about classroom activities other than to say that these would involve teaching some children Spanish and, in general, recognizing and utilizing the child's cultural background to improve affective and academic functioning in school. Counseling for teachers was recommended in order to raise their expectations about children and to dispel impressions that parents are unwilling to take part in their children's education. Rather than assuming a lack of interest, teachers must recognize that parents' perception of the role they should play in the education of their children may be widely discrepant with the expectations of educators. Until this discrepancy is resolved, parents will not be involved in the instructional process. If, for example, resources are provided so that a family's basic needs for food, clothing, and shelter are met, parents may be more likely to allocate energy to school-related matters.

Ortiz, A. A. & Yates, J. R. (1984). Staffing and the development of individualized educational programs for bilingual exceptional students. In L. M. Baca & H. T. Cervantes, (Eds.), The bilingual special education interface (pp. 187-213). St. Louis, MO: Times Mirror/Mosby.

Ortiz and Yates discuss the importance of the development and provision of appropriate individual educational programs for the bilingual exceptional child by appropriately trained special education personnel. They discuss variables which affect delivery of services to the limited English proficient (LEP) handicapped student including lack of trained personnel, appropriate procedures, and instructional strategies and materials.

The authors delineate the responsibilities of the admission, review and dismissal (ARD) committee whose members are charged with assuring that instruction and services are tailored to the needs of the LEP handicapped child and outline components of the individual education program (IEP). The authors suggest that IEPs must be adapted to address linguistic, cultural and other unique traits of children. Variables which they suggest should be considered in planning instructional programs include: (a) general characteristics of the child's community, (b) cognitive styles, (c) locus of control, (d) the effects of pupil characteristics on teacher behavior, (e) language, (f) selection of the language of instruction, (g) socioeconomic status, and (h) mobility. A chart reflecting cultural diversity among Mexican-Americans (Ramirez and Castaneda, 1974) is helpful in alerting educators to dangers of stereotyping children on the basis of ethnic group membership. A brief description of Hispanic parental participation in school activities also provides insights into home-school relationships.

Ortiz and Yates present placement alternatives for the LEP handicapped child. They suggest that when children are mainstreamed into a regular or bilingual education classroom, teachers should be provided with assistance to assure that educational interventions are appropriate to students' needs.

A very important decision to be made in planning for LEP children concerns the language of instruction. The authors suggest that instruction be provided in the language in which students demonstrate proficiency. When no clear dominance is established, other variables may be taken into consideration in choosing the language of instruction including: (a) the child's age, (b) language preference, (c) previous language experiences, (d) attitudes of the parents, and (e) motivation. They emphasize that the child must be able to effectively communicate ideas before s/he can be expected to master skills such as reading.

An example of educational planning for LEP handicapped students is provided to illustrate how to develop an individualized program tailored to the child's needs. Suggested instructional strategies are also included.

Some of the information contained in this chapter is already outdated. For example, in the case study of F.T., a recommendation is made that basic sentence patterns be taught and structured drills be used to reinforce sentence patterns. However, second language acquisition research suggests that this type of language instruction is not effective. Rather, children should be provided comprehensible input. Such input need not be grammatically sequenced, but should be interesting, relevant, and provided in a low anxiety situation.

This chapter provides an overview of variables to be considered in educational planning for language minority students. Topics discussed provide an excellent basis for a research agenda for bilingual special education as recommendations for instructional planning are deduced from literature in bilingual education, special education, and related disciplines, but are yet to be confirmed by studies of exceptional language minorities.

4. Recommended Strategies, Approaches, and Programs for Exceptional Bilingual Students

Chance, P. (1981). The remedial thinker. Psychology Today, 15(10) pp. 63-73.

Rueven Feuerstein postulates that most commonly used measures of intelligence reflect current levels of functioning rather than capacity. He suggests that one should measure learning ability directly instead of measuring past learning and proposes that subnormal intelligence can be improved. He and his colleagues developed the Learning Potential Assessment Device (LPAD), an assessment measure which uses a test-teach-test procedure, to discover what a child can learn. By focusing on how children learn to solve problems, Feuerstein discovered that "retarded performers" are far more capable than their IQ's (as measured by traditional instruments) suggest.

According to Feuerstein, retarded performance may be the result of a lack of mediated learning experiences (MLE), rather than of a lack of interaction with the environment. The MLE is a process in which someone, usually an adult, assists the child by interpreting and organizing stimuli in the direction of a specific goal or purpose or for the purpose of problem solving. For example, stopping at a red light is a direct experience; having an adult point out that "red" means "stop" is a mediated learning experience.

Feuerstein stresses that mediated experiences are more important than direct experiences with environmental stimuli. Too few mediated experiences can result in poor thinking skills which, in turn, reduce the individual's ability to learn from further direct experiences. Neither remedial efforts aimed at providing a stimulating environment nor emphasis on traditional academics, will be effective in overcoming

cognitive deficiencies. Instead, what is called for is that someone mediate learning experiences and frame the stimuli to provide insight into the thinking process.

The concept of MLE is the basis for Feuerstein's Instrumental Enrichment (IE) program. This program consists of 15 paper-and-pencil "instruments" designed for use with 10-18 year olds. The same test-teach-test method used in the LPAD forms the basis for IE activities. The goal of the program is to help children improve cognitive skills by teaching how solutions are derived and how facts are acquired. Extensive training is required for teachers to be able to use the program effectively and this may limit its use.

Feuerstein identifies "flaws" in basic thinking skills of slow learners including: (a) impulsivity; (b) failure to recognize problems; (c) episodic grasps of reality, i.e., events and objects are viewed in isolation; (d) failure to make comparisons; and (e) inadequate spatial orientation. He states that retarded performers fail to recognize that their own intellectual efforts may contribute to the solution of a problem and, instead, see themselves as passive recipients of information. There is a striking similarity between these "flaws" and characteristics attributed to children with external locus of control (Vasquez, 1975) or who demonstrate learned helplessness (Henderson, 1980).

The literature suggests that minority group children and children from lower socioeconomic status environments are likely to be externally oriented. The literature is also replete with reports which indicate that these students are likely to be underachievers. If it is possible to train thinking skills, the academic performance of minority students can be significantly improved through the use of Feuerstein's Instrumental Enrichment program.

Findings of several studies conducted in the United States show positive effects of the IE program; students who have had IE training show a slight advantage over control groups on varied measures of intellectual capacity, and these gains seem to hold over time. Chance cautions, however, that there is not a sufficient body of carefully controlled research available to demonstrate that students do indeed benefit from Instrumental Enrichment. The use of the IE program is a promising area for research related to best practices in intervention with minority students, including exceptional language minorities.

Harth, R. (1982). The Feuerstein perspective on the modification of cognitive performance. Focus on Exceptional Children, 15(3), 1-12.

Harth provides a comprehensive discussion of the Learning Potential Assessment Device (Feuerstein, 1979). Central to Feuerstein's theories is the concept of the mediated learning experience (MLE), the way in which a mediating agent, usually an adult, transforms stimuli emitted by the environment for the child.

Through this process, a child acquires behavior patterns and learning sets and learns to profit from direct exposure to stimuli. If lack of MLE is directly responsible for cognitive deficits, normal cognitive growth can be restored by applying appropriate mediated learning experiences.

Harth suggests that traditional special education interventions, because they are based on the assumption that low functioning individuals are not modifiable, are designed to prepare individuals to function at low levels. Programs mold the requirements and activities of the educational setting to fit the student's current level of functioning, thus maintaining low functioning. As a result, special educators may be defeating their goal of helping handicapped students achieve their maximum potential and to function independently. Under Feuerstein's model of cognitive modifiability, the observed low level of performance is accepted neither as status quo nor as a fixed ceiling of an individual's capacity. The IE program focuses on moving individuals toward higher levels of functioning.

Harth departs from Feuerstein's preference for content-free intervention, and builds a rationale for using content curriculum as the basis for cognitive redevelopment and improved academic performance. He incorporates five aspects of procedures used in the administration of the LPAD to the teaching of curriculum content. These include: (a) regulation of behavior through inhibition and control of impulsivity, (b) improvement of deficient cognitive functions, (c) enrichment of the repertoire of mental operations, (d) enrichment of task related contextual repertoire, and (e) creation of reflective insightful thought processes. The use of problem-solving strategies on tasks of graduated difficulty is described, as are adaptations of assignments and task demands. Examples of the process are provided through a series of figures and tables.

Tikunoff, W. (1982, March). The Significant Bilingual Instructional Features descriptive study: Progress and issues from Part I. Paper presented at the meeting of the American Educational Research Association, New York, NY, 21 pp.

Tikunoff presents an overview of the Significant Bilingual Instructional Features (SBIF) study which was commissioned to provide Congress with information regarding instructional features which provide successful access to learning experiences for students of limited English proficiency (LEP). Part I of the study focused on (a) indicators of successful bilingual instructional settings; (b) the school, community, program, and family context within which classrooms are nested; (c) the organizational structure of the classroom; (d) allocation of instructional time; and (e) teacher and student variables. This paper focuses on effective teacher behaviors.

The sample for Part I of the SBIF study consisted of 58 teachers from six participating data collection sites. Teachers were selected through a nomination process, that is, constituents (parents, teachers, administrators, etc.) were asked to nominate teachers they

considered to be among the most successful bilingual instructors. Target students included 232 LEP students in 54 elementary classes, three junior high classes, and one high school class. Neither the teacher sample nor the student population was described in detail. Data were collected using classroom observation instruments, interviews, program plans and other available documents.

Analysis of classroom observation data yielded several interesting findings. Bilingual education teachers compared favorably with descriptions in the literature of teacher behaviors associated with effective instruction. Effective teaching behaviors demonstrated by teachers in the sample included: (a) emphasis on basic skills; (b) creation, reinforcement, and communication of task and instructional demands; (c) monitoring of students' work; (d) frequent and immediate feedback; (e) active teaching behaviors; (f) use of both languages to mediate instruction; (g) responding to and using cultural clues; and (h) developing both the first and the second language. Two-thirds of the time allocated to basic skills instruction was deemed to be Academic Learning Time (ALT), i.e., students were engaged in learning tasks in content areas with a high degree of accuracy. However, measures of ALT were made on the basis of student assignments which did not call for conceptual or abstract thinking skills but which, rather, lent themselves to easy quantification (e.g. drill sheets, spelling tests, etc.).

Teachers were rated highly with regard to use of "active teaching behaviors". Tikunoff concludes that if these behaviors have been established as being reliably associated with effective instruction of reading and math, it would follow that the bilingual education teachers in this study, because they exhibited these behaviors, are also effective teachers of reading and math. This is a logical argument and one which one would expect would hold true. It would have been helpful, however, given that this study included both a different instructional setting (bilingual education versus regular education classes) and a different student population (limited English proficient versus monolingual English speakers), to present other evidence that these teachers were indeed effective. One such powerful piece of evidence would be measures of student achievement.

Tikunoff concludes that the preliminary findings of Part I of the study provide evidence that bilingual education programs are meeting their primary goals: LEP students are provided with classroom instructional experiences which facilitate progress in academic skill development while also developing English language proficiency. He discusses issues and implications of this study for general practice and research related to bilingual education. The Significant Bilingual Instructional Features Study provides data from which a model can be developed which describes effective bilingual instruction. This model could be incorporated for special education instructional programs as well.

5. Curricula and Materials

Almanza, H. & Mosley, W. (1980). Curriculum adaptations and modifications for culturally diverse handicapped children. Exceptional Children, 46(6), 608-614.

Almanza and Mosley make three key points: (a) while each culture has a basic set or common core of values, there are within-group differences; (b) culturally relevant materials in the curriculum, by themselves, will not address the instructional needs of racially or ethnically different children; and (c) teaching children according to their own cognitive styles assures greater likelihood of success and fewer special education referrals.

Both curriculum and instruction must be based on knowledge of the specific minority culture and student attitudes about school, themselves, as well as knowledge of common values of cultural groups. The authors give examples of value conflicts and how these create problems if they are not accommodated in the instructional process. The example of Indian values presented, however, reflects a common stereotype of this group.

The influence of students' movement repertoire (passive versus active behaviors), perceptual style, and cognitive style on school performance is discussed and the authors suggest how differences in learning characteristics across these dimensions can be addressed through curriculum adaptation. For example, if exceptional culturally diverse children demonstrate relational/impulsive learning styles, the curriculum should be designed to help them develop more analytical, reflective skills as these are the behaviors expected by teachers. The underlying theme of these discussions is that exceptional culturally diverse students should be taught to use cognitive and learning processes which are used by children regarded as successful students.

Bland, E., Sabatino, D. A., Sedlack, R., & Sterberg, L. (1979). Availability, usability and desirability of instructional materials and media for minority handicapped students. The Journal of Special Education, 13(2), 157-167.

Bland et al. conducted a national survey to test the hypothesis that there is a void in the availability, usability, and general information about curricular material or instructional media for minority handicapped elementary students and to assess teachers' estimates of the value of available materials. A cross-section of 270 special education respondents from thirteen states who had access to instructional media or materials centers for the handicapped, and who had direct contact with more than one particular minority group (including Blacks, Native Americans, and Spanish-surnamed students), were interviewed via a structured questionnaire to determine: (a) the

availability of media and instructional materials for minority handicapped students; (b) frequency, type and amount of current media and instructional material usage with minority handicapped students; (c) teacher knowledge of materials in print and familiarity with media; (d) availability of teacher-made or locally-distributed nonprint materials for use specifically with this population; and (e) desirability and appropriateness of media and instructional materials for specific populations of minority handicapped students.

Results of the questionnaire indicate a general agreement among respondents that learner characteristics of minority and handicapped children require specially-developed curricula and alternative modes of presentation. However, even when available, media and materials developed specifically for these children must frequently be adapted because they are not suitable (e.g. they lack relevance to the student's background, failure to accommodate linguistic characteristics, and/or reflect cultural bias). This is particularly true for academic subjects such as reading, language development, prevocational skills and affective/social instruction. While the shortage of available materials creates reliance on texts, workbooks, desk work materials, games, and records, the respondents felt that materials were accessible, interesting to the students, and generally relevant to the teaching task.

While the need for special media and materials for minority handicapped students is substantiated, the authors fail to address alternatives for resolving this problem. It is unlikely that commercial publishers will enter what is perceived to be a limited market. In light of this, it may be appropriate to explore the roles and responsibilities of federal and state governments, professional organizations, and local education and other related agencies, in providing the necessary instructional materials to assure appropriate educational opportunities for exceptional minority students. It is also important to emphasize the need for service providers to have the skills necessary to make appropriate adaptations of materials for handicapped minorities.

Chinn, P. (1979). Curriculum development for culturally different exceptional children. Teacher Education and Special Education, 2(4), 49-58.

Chinn's extensive searches of two computer databases, ERIC and ECER, failed to yield curricula related specifically to culturally diverse exceptional children. Chinn concludes that few, if any, curricula that have been developed for exceptional culturally diverse students and that there has been little dissemination of existing curricula, materials, strategies appropriate for culturally diverse exceptional children. Special educators must develop, by necessity, the ability to adapt and modify existing materials to meet the needs of handicapped culturally diverse students.

Variables which contribute to the social and emotional adjustment of culturally diverse children, including racism, poverty, health, and the built-in failure system for many culturally different children within the educational process are discussed. For each of these areas, general suggestions about what should be incorporated in the curriculum are provided and resources and materials to support instruction are identified. Chinn also discusses strategies which can be used with exceptional culturally diverse students including those strategies recommended for gifted/talented students and for retarded children. For example, Hurley (1975) suggests that language experience stories are a viable approach to reading for children who speak non-standard English or dialects. He also suggests that an inductive approach, in which children learn how to process information, is very effective with culturally diverse retarded children.

If culturally diverse children are to succeed, instructional approaches must be tailored to individual learning styles and characteristics. Otherwise, lack of success may very well be attributed to the school's failure to match its methods and curriculum to the child's language, cultural background, and learning style.

Deignan, M. C. & Ryan, K. E. (1979). Annotated bibliography of bilingual teaching materials applicable to the special learning needs of Spanish-dominant special education pupils. Portsmouth, NH: New England Teacher Corps Network.

The authors began by searching for materials developed to meet the needs of Spanish-speaking special education pupils, but found few such materials existed. They then chose to develop an annotated bibliography of materials available for use with Spanish-speaking students which could be adapted to the needs of exceptional students. Materials included are organized into the following categories: (a) motor development, (b) visual perceptual development, (c) auditory perceptual development, (d) language development, (e) mathematics, (f) social awareness, (g) language arts, (h) health and science, and (i) early childhood. Materials are cross-referenced on a chart which identifies, according to the authors, every area in which a particular material could be of value to the special educator. Publishers and prices are given.

The authors do not describe criteria used for selection of materials included in the bibliography. There are few evaluative comments which would suggest why materials are considered uniquely appropriate to Spanish speakers, in general, or for exceptional Spanish speakers in particular. Generally, it seems that the major criterion was that materials were in Spanish. However, even along this dimension, there is no analysis of the adequacy of language used, appropriateness in terms of regional varieties or dialects, nor adequacy of vocabulary. Some materials were chosen on the basis of secondary sources (e.g. descriptions from a materials catalogue) causing one to question how the authors could have determined utility

or could have accomplished cross-referencing for the skills chart. The authors also suggest the type of setting (e.g. self-contained or resource room) for which materials are better suited although there is no rationale for suggesting a particular setting. For example, the Grammar Series, which consists of full-color posters illustrating the parts of speech, is recommended for non-categorical resource rooms for older elementary students, but not for tutorial or self-contained classes. Despite these shortcomings, the bibliography is a helpful compilation of materials which could potentially be used for exceptional Hispanics.

De Leon, J. (1983. April). Evaluating and adapting materials for use with bilingual exceptional children. Paper presented at the Annual International Convention of the Council for Exceptional Children Conference, Detroit, MI. (ERIC Document Reproduction Service No. ED 230 007) 21 pp.

De Leon builds a case for development and use of materials designed for exceptional culturally different students. The current state of the art is that there are few such materials available either from commercial publishers or through the efforts of school districts or teachers. Consequently, teachers have little recourse other than to improvise or to adapt materials developed for handicapped or for bilingual students. This paper is intended to serve as a guide for teachers involved in this process. De Leon provides a series of questions to be used in evaluating materials for use with culturally diverse students and a checklist for evaluating curricula on the basis of theoretical foundation, content, usability, assessment, cost, and evaluation. The author's guidelines and criteria for evaluting and adapting materials for use with bilingual exceptional children need to be further developed.

De Leon suggests viewing the classroom as an ecological system and that, as such, materials evaluation would include analysis of the curriculum, the student, the teacher, and the physical environment. Variables to be analyzed within the ecological system are identified but not discussed. Suggestions for adaptation of materials are discussed only generally with little rationale for selection of guidelines included. Discussion of variables to consider in adapting materials for language minorities is limited and at times stereotypic. For example, the section on cognitive styles describes field sensitive versus field independent styles and suggests that the "Mexican American child is said to be field dependent or field sensitive and perceives information as a whole" (p. 6). Not enough attention is paid to the variation of characteristics within groups.

De Leon makes several important points: (a) there are existing laws which require that the exceptional child receive an appropriate education; (b) for language disordered students, appropriateness can only be achieved through careful consideration of unique student attributes such as language, culture, and socioeconomic status; (c) criteria for evaluation of materials must include a description of

characteristics of materials, e.g. whether they are direct translations of English versions, country of origin of materials, cultural relevance, effect of adaptation on content, intent, or objectives of materials and differences in students' learning styles; and (d) in order to achieve a match between teaching and learning, the classroom must be considered an ecological system with the characteristics of teachers, curriculum, and the physical environment interacting to determine likelihood of success or failure in the school context.

Dew, N. (1981, February). Designing an individualized math lab program for the bilingual LD student (Grades 4-9). Paper presented at the Council for Exceptional Children Conference on the Exceptional Bilingual Child, New Orleans, LA. (ERIC Document Reproduction Services No. ED 208 606) 71 pp.

Dew gives an excellent overview of materials available for teaching bilingual learning disabled students. The information packet presented is intended as a working notebook to which teachers can add information from other sources. This notebook is divided into five sections: (a) a sample criterion referenced math test in English/Spanish with an accompanying individual mathematics profile sheet; (b) curriculum materials for a bilingual math lab, and selected articles on math instruction for bilingual students; (c) manipulative materials, culturally relevant/controlled English materials, Spanish/English materials and textbooks, curriculum guides, kits, records, audio programs, etc.; (d) math lab management; and (e) other available resources.

Research data (see review of Dew & Hamayan, 1982) indicate that students benefit from math classes in a bilingual program and that these benefits are demonstrated even when students are tested in English. These results provide support for education plans which include native language instruction for the handicapped.

Smith, J. (1979). The education of Mexican Americans: Bilingual, bicognitive, or biased? Teacher Education and Special Education, 2(4), 27-48.

The purpose of this article is to discuss factors that may contribute to low educational achievement of Mexican Americans. Smith discusses contradictory evidence related to the effects of bilingualism on achievement and issues related to assessment, including language of administration, examiner characteristics, level of acculturation, and the arbitrary use of test scores for placement and labeling. A related issue is the prejudicial nature of programs, curricula, and activities which fail to address the values, needs, and learning styles of specific populations.

According to Smith, there is an expanding body of literature which indicates that Mexican Americans vary along several dimensions and present unique characteristics in cognition and social motivation. For example, there is compelling evidence to support the cooperative, versus competitive, nature of this group. Research suggests that Mexican American children may be superior in working to, and for, group goals, in process-oriented, rather than product-oriented learning situations, and in affective and empathetic roles. Given such findings, the emphasis on competition and rivalry which frequently characterizes school learning may be questioned. There is a need then, to explore alternatives to curriculum materials and instructional technologies which do not accommodate individual styles of learning and problem solving.

Smith's article embodies several popular themes in recent writings on the education of Mexican American children. However, there is growing resistance to presenting attributes as characteristic or even common to minority groups for fear that such descriptions will reinforce or create stereotypes. This is not to deny that certain characteristics may be common to certain members of a group. However, it is imperative to determine whether or not these attributes apply to a given individual. Unless educators recognize the heterogeneity of Mexican Americans and other ethnic groups, educational interventions adapted to reflect traditional characteristics of minorities will be as irrelevant as the original materials.

6. Teacher Training

Gonzalez, E. (1979). Preparation for teaching the multicultural exceptional child: Trends and concerns. Teacher Education and Special Education, 2(4), 12-18.

Gonzalez traces legal and political mandates which have required that educational systems include, accept, and accommodate culturally and linguistically different children. Legislation and litigation reviewed includes: Brown v. Board of Education of Topeka (1954), Civil Rights Act (1964), Diana v. Board of Education (1970), Title VII Bilingual Education Act (1972), Lau v. Nichols (1974), the Education for All Handicapped Children Act (1975), and Larry P. et al. v. Wilson Riles (1976).

A definition of multicultural education is presented. According to Grant (1977), education that is multicultural is characterized by: (a) staffing patterns which reflect cultural pluralism; (b) curricula which are appropriate and flexible and which incorporate the contributions of all cultural groups; (c) distinctions between cultural differences and deficits; (d) instructional materials which are free of bias, omissions, and stereotypes; and (e) evaluation of curricula content and how experiences and materials help encourage better understanding and respect for mankind.

Gonzalez identifies several topics which should be incorporated into teacher training programs including language, culture, community training activities, parental involvement, and evaluation, selection, and development of instructional materials. He concludes, however, that teacher educators themselves do not have the necessary experience to prepare special education personnel to teach in multicultural settings. He urges that Institutions of Higher Education prepare multicultural special educators to systematically document and publish alternatives which will allow for a more viable selection of approaches to teacher training. He also suggests that a center be established to distribute information and to coordinate efforts related to teaching the multicultural exceptional child.

Neither the research agenda nor the center recommended are discussed in depth, although both are excellent recommendations. Until there is a specific research base associated with exceptional linguistic/cultural minorities, it will not be possible to develop effective teacher training programs. Reasons for the paucity of research on this population include a limited number of personnel interested in unique considerations in service delivery for language minority students and sparse resources for research activities. A networking process would minimize duplication of effort and would assure dissemination of information in a timely fashion.

Plata, M. (1979). Preparing teachers for the Mexican American handicapped: The challenge and the charge. Teacher Education and Special Education, 2(4), 21-26.

Plata stresses the need to train teachers who can be responsive to students who reflect linguistic, cultural, academic, and emotional diversity. He provides a general discussion of areas which should be incorporated into programs which prepare teachers to work with handicapped Mexican American students. These include: (a) bilingual education training (e.g., linguistics and language development, English as a second language, cultural anthropology); (b) special education training (e.g., assessment and evaluation, working with parents, classroom management); (c) counseling; and (d) materials development. The author builds a strong case for linking the complementary disciplines of bilingual education and special education but offers no rationale for his selection of competencies to be incorporated in programs for training specialized personnel to serve handicapped Mexican Americans.

Plata does present a very helpful discussion of variables which may affect program development, including faculty attitudes and their willingness to cooperate in addressing training needs, course offerings, and so forth. Without the support of these faculty, it will be difficult to institutionalize training programs for teachers of handicapped language minorities.

Rodriguez, R. C., Cole, J. T., Stiles, S. W. & Gallegos, R. L. (1979). Bilingualism and biculturalism for the special education classroom. Teacher Education and Special Education, 2(4) 67-74.

Providing linguistically and culturally relevant interventions in special education classrooms is stressed as a prerequisite for student progress. The authors describe types of training which can help teachers understand cultural, linguistic, and value differences in their interactions with Hispanic students and their parents. Three major competency areas are addressed: (a) sociological, ideological, and historical awareness; (b) parental and community involvement; and (c) bilingual/bicultural curricula. Topics and content of training are suggested for each competency area and procedures for delivering training are offered.

Specialized instruction, in a language which children do not understand, will be of little benefit to the student. A strength of this article is that the authors stress competencies which can be achieved by monolingual (English) special education teachers. Although it is noted, not enough emphasis is given to native language instruction. Because a common misconception is that handicapped children should be instructed only in English to avoid confusion, it is important to make special educators aware that English language skill acquisition is dependent upon the child's successful mastery of his/her native language.

Conclusion

In 1979, Chinn conducted extensive literature searches in an effort to identify specialized curricula for handicapped culturally different children. These searches yielded publications which addressed strategies and approaches appropriate to minorities, but none were specific to exceptional children. Five years later, Chinn's work remains state of the art: (a) there are few, if any curricula designed for exceptional culturally diverse students; (b) few instructional strategies have universal appeal and utilitarian value; (c) frequently, it is teachers who develop curricula and instructional strategies for use with this population; and (d) there has been little dissemination of available curricula, materials, and instructional strategies for exceptional minorities.

The lack of information related to handicapped minorities is even more pronounced when one considers educational programming for handicapped bilingual students. Special education and related literature rarely present unique considerations in working with limited English proficient (LEP) or bilingual students. Further, when such considerations are addressed, information is usually gleaned from what is known about the handicapped in general, deduced from literature in related disciplines such as bilingual education or linguistics, or based on the intuitions or educated guesses of professionals. The state of the art reflects the lack of empirical study of language minority students with special educational needs.

Until such research is conducted, it will not be possible to determine if these students are receiving appropriate educational opportunities as mandated by federal and state laws.

There is growing evidence that handicapped language minority students, just as normal children, receive the most appropriate education when: (a) they are provided instruction in their native language; (b) they participate in second language acquisition programs, if appropriate; and (c) instruction is consonant with both the students' handicapping condition(s) and background characteristics. While there is general agreement that adapting curricula and materials to make them culturally relevant is a step toward reducing the discrepancy between the characteristics of students and those of school programs, there is disagreement about the nature of cultural differences which must be considered, their distribution within groups, and how specialized instruction should be adapted to take these factors into account.

Benson (as cited in Benson, Medrich, & Buckley, 1980) summarizes this dilemma:

> Each year children attend school, they bring with them a lot of "baggage"- their health, energy levels, knowledge of skills acquired in formal learning and in informal activities, tastes, attitudes, and expectations. Presumably some of this baggage is helpful to a given child in his school work, and some is not helpful. We know very little about how the baggage is acquired by a child, or in some cases, forced on him. What we do know is that the differences in school performance of children is greater than can be explained by initial intellectual endowments and that the gap in performance tends to get wider the longer children are in school. Education programs as they have developed, seek to compensate for deficiencies in home background, but this compensation is offered in the absence of knowledge of precisely what, if anything, is lacking in the home toward which compensation should be made. (pp. 174-175)

The most frequent recommendation found in the literature on curriculum and instruction for handicapped minorities is that educators should incorporate the history, heritage, traditions, and lifestyles of diverse cultural groups when developing or adapting instructional materials or curricula. An important caution, however, is that when emphasis is given to traditional aspects of culture, instructional materials may inadvertently reinforce the very stereotypes educators wish to eliminate.

A common misconception is that handicapped children who have limited English proficiency, or who are bilingual, should be taught in English. Educators reason that if exceptional children have difficulty developing language skills, they will require more time than others to master a language and will be confused by bilingual instruction. It is thought to be in the best interest of students to provide instruction in one language and the choice is usually English (Ortiz, 1984). While there are many questions regarding bilingual development to be resolved by future research, there is a growing body of literature suggesting that bilingual proficiency is not beyond the capability of handicapped children and that a policy of single language instruction may ignore linguistic skills which are important to the child (Greenlee, 1981). Available literature suggests that the instructional process for language minority students in special education should be consistent with what we know about how language is acquired and about the interrelationships between the first and the second language. For minority students who are academically at risk, strong promotion of native language conceptual skills will be more effective in providing a basis for the acquisition of literacy in English (Cummins, 1984). Because of the multiplicity

of variables which must be considered in determining the language of instruction and the most effective uses of dual language instruction, an important contribution to the field would be the development of a framework for choosing the language(s) of instruction. Also needed are studies which document the effects of English only, native language only, or dual language instruction with handicapped populations.

The literature does not directly address the need for curricula and instructional methods for bilingual exceptional students. This may be due to the paucity of empirical research on this topic. It would be premature, then, to conclude that existing curricula and materials can meet the needs of language minority students. Research conducted in related disciplines will continue to provide the basis for educational programming decisions until there is a body of knowledge developed specific to bilingual special education. Currently, there are several topics which hold promise for modifying instructional programs for bilingual students in special education. These are (a) the work of Cummins (1983, 1982, 1981 & 1979) and others (Krashen, 1982; Dulay, Burt and Krashen, 1982) on the process of second language acquisition and on strategies for facilitating second language acquisition, strategies which are dramatically different from traditional approaches for teaching English as a second language; (b) the writings of Reuven Feuerstein (1980, 1979) on cognitive modifiability and his suggestions for mediating learning experiences; (c) research on the bilingual brain which provides recommendations for tapping both left and right brain processing functions to increase the likelihood of success of bilingual students (Rubenzer, 1979; Albert & Obler, 1978); and (d) examination of variables which have been

consistently shown in the literature to influence student achievement including, teacher expectations (Silvernail, 1979) and locus of control or learned helplessness (Henderson, 1980; Vasquez, 1975). Literature in these areas emphasizes the need to recognize differences in student learning and cognitive styles, and perhaps more importantly, the need to examine teacher responses to individual differences and the effects of these responses on the teaching-learning process.

There is a need to develop instructional materials and curricula and to make them available to educators who serve exceptional LEP students. This is not an awesome task in that much groundwork has already been done in identifying existing materials which may be appropriate to this population or which could be adapted to meet specific student needs or characteristics. It would not be accurate to say, then, that there are no available materials on the market. However, information about resources which do exist has not been disseminated widely.

It is questionable whether it is possible to leave responsibility for adapting or modifying curricula or materials to existing school personnel. There is a general lack of understanding of linguistically and/or culturally different populations, even in settings where minorities comprise the majority student body. Because of the lack of readily available data, teachers and others would not be able, on an ongoing basis, to adapt instructional materials and strategies to make them relevant to LEP students. Appropriately trained staff could address this issue. However, few institutions of higher education or related agencies currently address the needs of exceptional bilingual populations in the context of teacher

preparation programs. Institutions which provide preservice bilingual special education training programs do not have the capability to meet manpower needs for bilingual special educators. Further, it is unlikely that adequate resources will be allocated to provide the required indepth inservice training to currently employed personnel.

What emerges from this literature review is a critical need for networking of efforts. State education agencies, local school districts, institutions of higher education, and other related education entities must become sensitized to the issues and develop training, policy curricula, instruction, and so forth, in order to improve the education of LEP students in general and handicapped LEP students in particular. Without such a focus, an increasing percentage of this country's most critical resources, its youth, will remain unavailable to the development of this nation's future.

Research Directions

Evidence already exists that bilingual education and special education can be linked together in effective problem solving formats. It is possible to describe cooperative instructional arrangements being utilized for bilingual exceptional students, but there is little empirical evidence available to determine the most appropriate arrangement(s) for any given handicapping condition or identified student characteristics. It is critical, then, that educators develop a research agenda which addresses educational planning, implementation, and evaluation of curricula and

instruction for exceptional bilingual students. This literature review suggests that the following would be fruitful lines of inquiry:

1. What federal and state policy can be developed to guide service delivery for handicapped LEP students?
2. What should be the entry and exit criteria for special education services provided these students?
3. What are the long-term effects of special education, including the effects of instruction in the native language, bilingually, or in English only?
4. Is the process of native language and second language acquisition different for handicapped populations?
5. What guidelines can be established for choosing the language of instruction for handicapped LEP and bilingual students?
6. What are essential features of intervention programs for handicapped second language learners?
7. Does the effectiveness of various interventions, including language of instruction, vary with handicapping conditions?
8. Can a taxonomy of best practices for instructing linguistically and culturally different students be established?
9. What are the characteristics and effectiveness of existing curricula and materials which are used in serving handicapped bilingual populations?
10. Is there well-documented guidance for practitioners involved in adaptation of instructional models, strategies, and materials?

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